Bundesministerium der Finanzen
Detlev-Rohwedder-Haus
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(submitted by e-mail to VIIB5@bmf.bund.de [redacted]

15 March 2019

Dear Sirs,

German Federal Ministry of Finance MiFID II consultation / Konsultation des Bundesministeriums der Finanzen zu Erfahrungen und möglichem Änderungsbedarf im Hinblick auf die EU-Finanzmarktrichtlinie (MiFID II) und die EU-Finanzmarktverordnung (MiFIR)

The International Capital Market Association (ICMA)[1] sets out its response to the above consultation in the Annexes to this letter.

ICMA is a membership association, headquartered in Switzerland, committed to serving the needs of its wide range of members. These include private and public sector issuers, financial intermediaries, asset managers and other investors, capital market infrastructure providers, central banks, law firms and others worldwide. ICMA currently has 550 members located in over 60 countries. See: www.icmagroup.org.

Annex 1 is primarily drafted on behalf of ICMA's primary market constituency comprised of banks that lead-manage syndicated debt securities issues throughout Europe. This constituency deliberates principally through the ICMA Primary Market Practices Committee and the ICMA Legal and Documentation Committee.

Annexes 2-4 are primarily drafted on behalf of ICMA's MiFID II/R Working Group, whose members are typically buy-side heads of trading desks, sell-side senior traders or heads of market structure and legal experts.

We would be pleased to discuss the ICMA response at your convenience.

Yours faithfully,

[redacted]

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[1] European Transparency Register #0223480577-59

Annex 1 – Primary markets response

1. On 6 December 2018, ICMA published *MiFID II/R and the bond markets: the first year - An analysis of the impacts and challenges of MiFID II/R implementation since January 2018*.

2. It includes some specific coverage of the primary markets, which have been affected by MiFID as many underwriters participating in new issue syndicates are MiFID-authorised entities. These new measures include allocation justification recording (in relation to underwriting & placing), the inducements and costs & charges regimes, and product governance. The primary markets community has also experienced the Packaged Retail and Insurance-Based Investment Products (PRIIPs) regime, to the extent that certain bonds are potentially "packaged" and are being made available to retail investors in the EEA.

3. The provisions on allocation justification recording relate to MiFID firms providing a MiFID placing service to issuers being required to keep an "audit trail", non-public written record of the justification for each investor allocation made. The rationale for this is to identify potential conflicts of interest, as underwriters look to balance the interests of their issuer clients with the interests of their buy-side relationships.

4. In practice, the underwriting community reached broad consensus on allocation recording principles, with the underwriter responsible for billing and delivery generally circulating an initial draft record that other syndicate members can then adopt (modifying it as relevant for their internal needs). The experience so far has mainly just resulted in added administration for underwriters, and it remains to be seen whether this measure will have meaningful benefits for issuers or investors.

5. The provisions on **inducements and costs & charges** require that firms providing MiFID services (eg order reception/ transmission to any investor "client") disclose to their client in advance any fee/commission or non-monetary benefit received from a "third party" in relation to the client service. Firms must also inter alia disclose ex ante and annually ex post the costs and charges relating to the services and financial instruments concerned, (also "encompassing any third-party payments")

6. In practice, agreement on whether these rules apply to the disclosure of underwriting fees has varied, depending on guidance from some national regulatory sources, the type of fees involved and how individual underwriters and/or how individual transactions are organised. Moreover, the prevailing view is that investors have little or no interest in the level of bond underwriting fees as these are very rarely a material factor in making an investment decision regarding bonds.

7. The **PRIIPs** regime requires any person "manufacturing" a "packaged" product, before it is "made available" to retail investors in the EEA, to publish a key information document (KID) of no more than three pages and then regularly review it, and if needed, publish a revised KID. Any person advising on, or selling, such a product must provide retail investors in the EEA with the KID in good time before those retail investors are bound by any contract or offer.

8. The **product governance** (PG) regime characterises MiFID II persons that "create, develop, issue and/or design financial instruments, including when advising corporate issuers on the launch of new financial instruments" as "manufacturers". It requires that collaboration between manufacturers must be documented in an agreement. MiFID II persons that "offer or sell", or "offer or recommend", financial instruments are "distributors" for PG purposes (with no connection to the manufacturer being explicitly required). Manufacturers must identify, and

communicate to distributors, a compatible target market of investors and periodically review that target market. Distributors must identify their own target markets (by either adopting the manufacturer's target market or refining it). These requirements are all applicable on a "proportionate" basis.

9. The PRIIPs regime is designed to enhance protection of retail investors participating in the structured products markets, while the PG regime imposes a type of suitability obligation on different market participants with respect to all products and investors. In this regard, the two regimes have significant problematic features that have led to unintended consequences, as well as raising concerns over the fundamental practicability of compliance.

10. Under PRIIPs, certain authorities have taken the position that the inclusion of a term or condition that deviates only slightly from what is regarded as a plain vanilla bond will bring that security into scope as a packaged product, requiring a KID to be produced. An example would be the inclusion of a "make whole" provision. The fact that this and other terms can be to the benefit of investors but bring a bond within PRIIPs, combined with the fact that equities are not subject to the PRIIPs regime yet present greater risks to the retail investor, has led many to question the efficacy and rationality of the PRIIPs regime. Under PRIIPs, a KID must not only be accurate but may also be interpreted to require the inclusion of all material information. The imposition of this requirement with attendant issuer liability for both a three-page KID and a full 100+ page prospectus has not only created perplexity but more significantly led many issuers to refuse to produce a KID and instead restrict placement of newly issued bonds to non-retail investors in the EEA.

11. The PG regime has had similar consequences. It has effectively created an investor suitability obligation, not just at the point of sale (the approach taken in the past by regulation), but also imposing this obligation on issuers, underwriters, and secondary market sellers over the entire lifetime of the instrument. The practical burden of compliance with PG has caused many EU-originated issues to curtail altogether placement of bonds to retail investors (see the 2018H1 vs 2017H1 percentage change in EUR benchmark issuance reported in the Fourth Quarter 2018 edition of the ICMA Quarterly Report).

12. While the goal of these primary market aspects of MiFID and PRIIPs is enhanced investor/consumer protection, it seems the impact has mainly been an increase in administrative burdens and a reduction in retail access to the bond markets.

Annex 2 – Secondary markets response

On 6 December 2018, ICMA published MiFID II/R and the bond markets: the first year - An analysis of the impacts and challenges of MiFID II/R implementation since January 2018. In addition to the Secondary Markets section covered in the analysis, ICMA and more specifically the MiFID II working group ('MWG') would like to highlight additional findings, regarding market liquidity and transparency, in more detail based on recent Q2 discussions. These findings can be found below.

1. Market Liquidity and 'open access'

The ICMA MiFID II working group considers this an opportune moment to review articles 35 and 36 MIFIR to study the possibility of removing the barriers to 'Open Access' to Europe's trading and clearing infrastructures.

'Open Access' means ensuring non-discriminatory access to trading and clearing infrastructures. Currently, European CCPs are able to offer privileged access to trading venues within their own corporate group. Many perceive this as establishing a 'silo' model and monopoly, which means the market may lose the benefits associated with free competition.

In the European markets, many bond trades are executed in a package with a listed derivative. This is also called a 'basis trade'. The bond and derivative leg of a transaction have a symbiotic relationship; with the dynamics of one affecting the relative attractiveness of the other. An example is the German Bund future and the German government bond cash market. (The German future is also used as a proxy to hedge other bonds such as Dutch State Loans).

Open access will give market participants enhanced choice in trading and clearing services, thereby avoiding the concentration of risk presented by closed market infrastructures, and leading to potentially lower costs, deeper pools of liquidity, improved service levels, greater capital efficiency and hopefully innovation. IOSCO shares this view, commenting: "fair and open access to trading venues and CCPs, based on transparent and objective criteria, is important for ensuring safe, efficient and continuous markets."

While article 35-36 MIFIR prescribes non-discriminatory access to CCPs and trading venues, it currently allows competent authorities the possibility to deny such access if it would 'threaten the smooth and orderly functioning of the markets, in particular due to liquidity fragmentation' or if it 'would adversely affect systemic risk'.

Citing these grounds, prior to MIFID II's go-life date, all relevant competent authorities chose to opt their market infrastructures out of the Open Access regime for a period of 30 months (presumably to coincide with the European Commission's review date). This means that the benefits of Open Access have so far been untested.

Members of ICMA's MWG recommend a review of the broad exceptions within the current regime, with an eye on assessing whether the benefits of competition are accurately weighted against the potential for 'risks'. This could include tasking ESMA and/or the ECB with the assessment underlying the invocation of any exceptions, increasing the burden of proof, narrowing the ground of exceptions or removing the exceptions altogether.

2. Transparency and liquidity determination for emerging market new issue bonds

Corporate and sovereign bonds under MiFID II are determined primarily by the liquidity of the 'individual instruments', categorised by an instrument-by-instrument approach (IBIA). However, bond new issues have different rules, they are assessed by 'classes of financial instruments approach' (COFIA) which apply between the first 2.5 and 5.5 months after issue, before switching to IBIA. The COFIA liquidity assessment is an initial 'static' determination, which is defined purely by issuance size relative to a variety of sub-classes of bonds. For example, sovereign bonds under €1,000,000 and corporate bonds under €500,000 will automatically be classified illiquid. Once a full quarter of trading data is available for a bond, the liquidity determination will be based on a dynamic instrument IBIA methodology.

ICMA has identified a fault in new issue COFIA logic regarding emerging market bonds compared with G8 bonds. Both have the same COFIA transparency approach in determining liquidity status. For example, a Nigerian 25 yr bond has the same liquidity threshold and therefore profile as a 10 yr German Bund. ICMA would appreciate an investigation into this illogical approach for emerging market bonds.

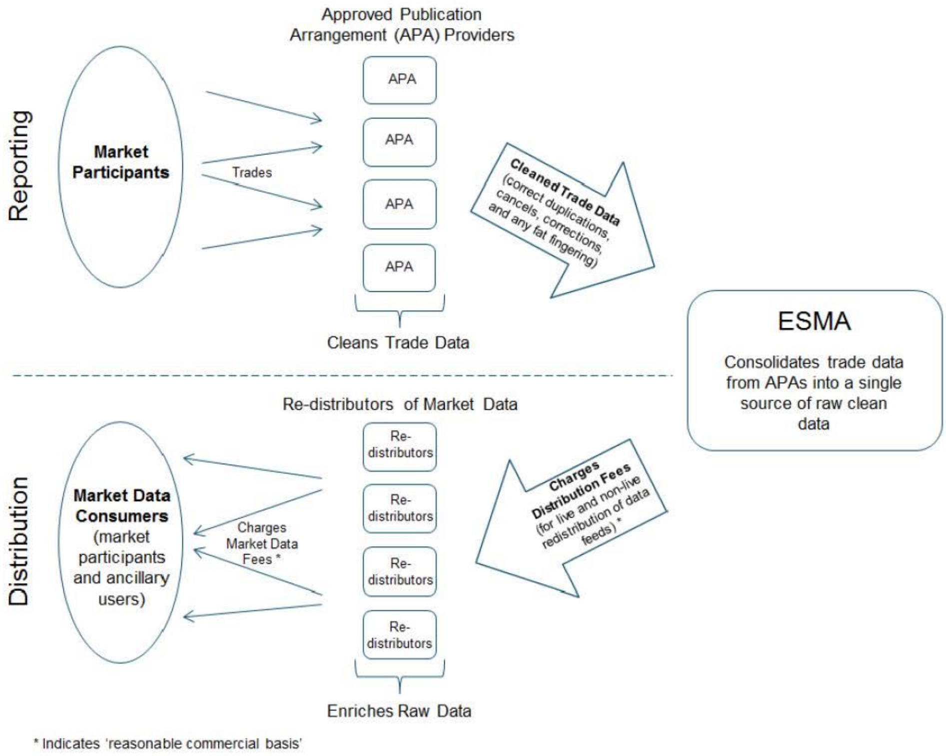
3. Transparency and data quality

ICMA's task force on post trade data quality is working with ESMA to improve data quality. The task force put together a table of issues and challenges and proposed solutions, which involve ESMA's two fundamental databases, which form the starting points for bond (including other asset classes) data quality in the EU. These ESMA databases are referred to as FIRDS and FITRS. Financial Instruments Reference Data System ('FIRDS') is a data collection infrastructure established by ESMA, in cooperation with the EU competent national authorities (NCAs). FIRDS covers financial instruments that are included in the scope of MiFID II. FIRDS links data feeds between ESMA, NCAs and around 300 trading venues across the European Union. ESMA's Financial Instruments Transparency System ('FITRS') database relies on FIRDS master records for liquidity assessments for bonds subject to the pre- and post-trade transparency requirements for MiFID II/MiFIR. The table of identified data challenges and proposed solutions by the task force are attached in annex 3, along with supporting examples in annex 4.

4. Transparency and a consolidated tape

Towards the end of 2018, ICMA carried out a survey on MiFID II, including a question regarding consolidated tape. Consistent with previous ICMA member feedback, the majority of respondents (86%) in Q4 2018, felt that a consolidated tape, provided as a utility (similar to TRACE in the US), would help to provide the level playing field that the regulation is intended to deliver.

ICMA agrees with the respondent survey and supports an EU consolidated tape utility. ICMA's position is that it should be ESMA owned and governed (most likely outsourced to another provider). This view was originally communicated to ESMA at the end of 2016 through an ESMA consultation paper response, with input from 13 heads of buy-side bond trading desks. This position is still active today and considers the EU consolidated tape should be a single source, centralised database of raw data. The following diagram, which is self-funding, outlines ICMA's stated approach and position:



Approved Publication Arrangement (APA) Providers
Reporting
Market Participants
Trades
APA
APA
APA
APA
Cleans Trade Data
Cleaned Trade Data (correct duplications, cancels, corrections, and any fat fingering)
ESMA
Consolidates trade data from APAs into a single source of raw clean data
Re-distributors of Market Data
Distribution
Market Data Consumers (market participants and ancillary users)
Charges Market Data Fees *
Re-distributors
Re-distributors
Re-distributors
Re-distributors
Charges Distribution Fees (for live and non-live redistribution of data feeds) *
Enriches Raw Data
* Indicates 'reasonable commercial basis'

Annex 3 – ICMA MiFID II Data Workstream Task Force on Data Quality
Non-equity post trade transparency data quality – issues/challenges and solutions

ICMA MiFID II Data Workstream Task Force on Data Quality
Non-equity post trade transparency data quality – issues/challenges and solutions

The below comments are:

a.) focused on bonds;

b.) based on the assumption that the CFI submitted to FIRDS by the relevant MIC has a direct impact on the data made available in FITRS;

c.) not listed in order of priority. FIRDS issues/challenges are listed first, followed by FITRS issues/challenges.

No	Issue/Challenge	Details	Solution	Benefit
1	**FIRDS: Confusing Publication Times of Daily Delta File (DLTINS)**	1)File publication times are not consistent, which complicates the process of acquiring ESMA files and using them in compliance process. This occurs frequently. For example: - the DLTINS file for Saturday 05/01/19 was not published until Sunday 06/01/19 at just after 12am CET; - the DLTINS file for Friday 11/01/19 was not published until Saturday 12/01/19 at 4pm CET	Publish once at a pre-defined time (initially planned by ESMA to be 8am CET). If data not available at 8am, a fixed alternative time could be set e.g. it could be published at 5pm, else it won't be published until the next day.	More accessible FIRDS files, resulting in standardised reporting.

2	**FIRDS: CFI Inconsistencies**	**<u>A) Cases of illogical (incorrect) CFIs assigned by numbering agencies.</u>** **Example bond: XS1843448660/XS1843449122** is a plain vanilla, fixed-rate bond, issued in two tranches (144A/Reg S format). The CFI codes for each tranche are provided below, as well as an explanation of what each character of the code represents. 144A tranche XS1843448660, CFI: DAFXBR DAFXBR stands for: D - Debt instruments A - Asset-backed securities F - Fixed rate X - Not applicable/undefined B - Amortization plan with call feature R - Registered Regulation S tranche XS1843449122, CFI: DYFXXR DYFXXR stands for: D - Debt instruments Y - Money market instruments F - Fixed rate X - Not applicable/undefined X - Not applicable/undefined R - Registered Given that the 144A and Regulation S tranches are exactly the same instrument (they are simply different tranches to allow for distribution in the United States/to US investors as well as non-US investors) we would expect the CFI for both tranches to be the same. In addition, given that this is a fixed-rate bond with no asset-backed characteristics, we	If not doing so already, we would be grateful if ESMA could raise this as part of ongoing discussions with ANNA.	Greater consistency in the standards followed by market participants. Will address the root cause of inconsistencies in FITRS (see point 3).

		would expect the first two characters of the CFI for both tranches to be 'DB', that is 'debt instrument' and 'bond.' **B) <u>Older versions of CFI standards</u>** We have also seen instances of the application of older versions of the CFI standard, because not all numbering agencies had moved to the 2015 version by the time MiFID II went live. Whilst this is reducing, there is still a knock-on problem with these codes in the system. **C) <u>Limited granularity</u>** There have also been instances of CFIs assigned by National Numbering Agencies with limited granularity. Often with only the first two characters populated - the rest assigned as ‘X's. i.e. DBXXXX.		

		D) **<u>Inconsistent and fallible process to remediate CFIs incorrectly generated by venues.</u>** Not all venues are adhering to the NNA CFI. This means that incorrect CFI codes generated by the venues may become the "relevant MIC" record. The lengthy and inefficient process of CFI correction compounds the situation and needs to be optimised. **For example:** If there is an incorrect CFI code, the local NCA is informed. The local NCA then informs the relevant NCA of the MIC. The NCA of the MIC can *choose to pass on* the notice of incorrect CFI code to the relevant MIC or *can veto* passing on the incorrect CFI notification. There is no guarantee the incorrect CFI code, via this process, will actually be corrected.	ESMA uses National Numbering Agency CFI in validation process instead of most relevant market CFI, thus ensuring that all parties contributing to FIRDS are following the same standard.	

3	**Knock-on Effects in FITRS of FIRDS CFI Inconsistencies** *Please note that this is based on our understanding that the relevant MIC is responsible for the FITRS master record details*	<u>**A) Incorrect CFI can result in mis-classification of instruments for transparency.**</u> These CFI inconsistencies (as described in point 2) can result in illogical liquidity and threshold assessments. **For example: ISIN ES0378641320.** This instrument was first admitted to trading on a regulated venue on 10/10/18. On 02/11/18, this instrument was assessed as liquid and the thresholds published in FITRS on this date were those for sovereign bonds (EUSB): SSTI pre-trade: 700,000 LIS pre-trade: 6,000,000 SSTI post-trade: 10,000,000 LIS post-trade: 25,000,000 The liquidity and thresholds records in FITRS were separate, as is the case in FITRS for bonds. Since 03/11/18 (in FITRS), the thresholds have changed from those for a sovereign bond (EUSB) to those for structured finance products (SFPS). The liquidity assessment is 'non-liquid', in line with the default regime for structured finance products (SFPs) and both thresholds and liquidity assessment are provided in one record. SSTI pre-trade: 100,000 LIS pre-trade: 250,000 SSTI post-trade: 500,000 LIS post-trade: 1,000,000 It seems that these changes are the result of the CFI code assigned to the instrument. ES0378641320 is a plain vanilla fixed-rate bond but has been assigned	**To assist with identification of instrument classification and use of FITRS:** It would be very helpful if ESMA could include the following in the **FITRS XML:** - MiFID asset and sub-asset class - MiFIR identifier **Note:** we understand that the MiFIR identifier will be available in FITRS once the new XML schema version 1.1 is in use and that the relevant MIC will be added to FIRDS. This is welcome progress and will be very useful for users.	Enhanced data quality and FITRS easier to use for market participants.

		the CFI 'DAFTFB'. This stands for: D - debt Instruments A - Asset-backed securities F - Fixed Rate T - Government/State Guarantee F - Fixed Maturity B - Bearer **Please see Annex 4 Part A (FITRS Records for ISIN ES0378641320)**		

4	**Duplicate Records & Missing Information in FITRS**	**A) Duplicate Records:** It can be difficult to identify in the FITRS XML files which record is the latest and if there has been a meaningful update to an instrument's record. Often delta files can contain duplicate records including for ISINs which were not recalculated on that day. The absence of a calculation date makes it challenging to determine when there truly was an update made.	**Addition of calculation date:** The calculation date is available on the ESMA website but not in the current XML schema (the downloadable and machine-readable version) for the FITRS files. If calculation date were added it would allow market participants to see which record is the most recent, and therefore the valid record to be used. It would also facilitate firms' data management by allowing them to filter out duplicate records. Calculation date is provided in the FITRS interface on the ESMA website, but not in the FITRS XML schema.	Improved quality of the data and ease of use for market participants.
		B) Difficulty of identifying liquidity records for bonds newly admitted to trading (and assessed by COFIA): It is not straightforward to identify liquidity records for bonds newly admitted to trading. For example, the below 4 ISIN codes were published in FITRS with a Q3 liquidity assessment. However, even after the publication in FITRS of the quarterly assessment, additional liquidity records were published for these securities. The liquidity records had empty calculation from/to dates, which are normally used only for bonds newly admitted to trading. This creates difficulty in distinguishing FITRS records for bonds newly admitted to trading and those which are subject to a quarterly assessment.	**Addition of bond liquidity flag distinguishing bonds with a quarterly assessment from those newly admitted to trading and assessed using COFIA.** For example, it could be something as simple as adding to the FITRS XML schema a flag such as: 'Q' = Quantitative quarterly assessment 'C' = COFIA assessment for bond newly admitted to trading. As such, once the COFIA status has ceased to apply, the bond should only ever be flagged as Q (for quarterly assessment) or be blank indicating that there is no liquidity assessment and therefore the	Increased transparency and consistent approach for firms to identify bonds newly admitted to trading, which are deemed liquid.

		Please see Annex 4 Part B (Bond liquidity records for ISINs listed below): **DE0001141786** **ES0000012B88** **FI4000348727** **FR0013344751**	instrument should be considered illiquid.	
5	**Non-Equity Transparency Quantitative Data Reporting Instructions Ambiguity**	1) Not clear to all TVs in the EU that zero volume reporting is required for each and every day.	Publicly correct FITRS Reporting Instructions.	Increase valid submissions by trading venues into the transparency calculations

Annex 4 – Post trade transparency data quality - examples

Part A - FITRS Records for ISIN ES0378641320

ES0378641320	2017-01-01	2017-12-31	2018-11-24 14:32:00	Non liquid	
ES0378641320	2017-01-01	2017-12-31	2018-11-23 08:32:00	Non liquid	
ES0378641320	2017-01-01	2017-12-31	2018-11-22 01:32:00	Non liquid	
ES0378641320	2017-01-01	2017-12-31	2018-11-21 09:32:00	Non liquid	
ES0378641320	2017-01-01	2017-12-31	2018-11-20 07:32:00	Non liquid	
ES0378641320	2017-01-01	2017-12-31	2018-11-19 00:32:01	Non liquid	
ES0378641320	2017-01-01	2017-12-31	2018-11-16 00:32:00	Non liquid	
ES0378641320	2017-01-01	2017-12-31	2018-11-15 05:32:01	Non liquid	
ES0378641320	2017-01-01	2017-12-31	2018-11-13 10:32:00	Non liquid	
ES0378641320	2017-01-01	2017-12-31	2018-11-10 00:32:00	Non liquid	
ES0378641320	2017-01-01	2017-12-31	2018-11-09 08:32:00	Non liquid	
ES0378641320	2017-01-01	2017-12-31	2018-11-07 08:32:01	Non liquid	
ES0378641320	2017-01-01	2017-12-31	2018-11-06 05:32:00	Non liquid	
ES0378641320	2017-01-01	2017-12-31	2018-11-03 19:32:01	Non liquid	
ES0378641320			2018-11-02 18:32:00	Liquid	
ES0378641320			2018-11-02 18:32:00	Liquid	
ES0378641320			2018-11-02 18:32:00	Liquid	
ES0378641320	2017-01-01	2017-12-31	2018-11-02 18:32:00		
ES0378641320			2018-10-25 12:17:10	Liquid	
ES0378641320			2018-10-25 12:17:10	Liquid	
ES0378641320			2018-10-25 12:17:10	Liquid	
ES0378641320	2017-01-01	2017-12-31	2018-10-25 12:17:10		

Part B - Example FITRS Bond Liquidity Records

DE0001141786

ISIN	Calculation From Date	Calculation To Date	Calculation Time	Liquidity Flag	More Info
DE0001141786	2017-01-01	2017-12-31	2018-12-09 05:32:01		
DE0001141786			2018-12-09 05:32:01	Liquid	
DE0001141786			2018-12-09 05:32:01	Liquid	
DE0001141786	2017-01-01	2017-12-31	2018-12-08 15:32:00		
DE0001141786			2018-12-08 15:32:00	Liquid	
DE0001141786			2018-12-08 15:32:00	Liquid	
DE0001141786			2018-12-07 05:32:01	Liquid	
DE0001141786	2017-01-01	2017-12-31	2018-12-07 05:32:01		
DE0001141786			2018-12-07 05:32:01	Liquid	
DE0001141786			2018-12-06 10:32:00	Liquid	
DE0001141786			2018-12-06 10:32:00	Liquid	
DE0001141786	2017-01-01	2017-12-31	2018-12-06 10:32:00		
DE0001141786	2017-01-01	2017-12-31	2018-12-04 09:32:00		
DE0001141786			2018-12-04 09:32:00	Liquid	
DE0001141786			2018-12-04 09:32:00	Liquid	
DE0001141786			2018-11-02 18:32:00	Liquid	
DE0001141786			2018-11-02 18:32:00	Liquid	
DE0001141786	2018-07-01	2018-09-30	2018-10-27 05:32:00	Liquid	
DE0001141786	2018-07-01	2018-09-30	2018-10-27 05:32:00	Liquid	
DE0001141786	2018-07-01	2018-09-30	2018-10-27 05:32:00	Liquid	
DE0001141786	2018-07-01	2018-09-30	2018-10-27 05:32:00	Liquid	
DE0001141786			2018-10-25 12:17:10	Liquid	
DE0001141786			2018-10-25 12:17:10	Liquid	
DE0001141786	2017-01-01	2017-12-31	2018-10-25 12:17:10		

ES0000012B88

ISIN	Calculation From Date	Calculation To Date	Calculation Time	Liquidity Flag	More Info
ES0000012B88	2017-01-01	2017-12-31	2019-01-04 10:55:01		
ES0000012B88	2017-01-01	2017-12-31	2018-12-30 10:55:01		
ES0000012B88	2017-01-01	2017-12-31	2018-12-27 10:55:01		
ES0000012B88	2017-01-01	2017-12-31	2018-12-26 10:55:01		
ES0000012B88	2017-01-01	2017-12-31	2018-12-19 11:05:10		
ES0000012B88			2018-12-09 05:32:01	Liquid	
ES0000012B88			2018-12-09 05:32:01	Liquid	
ES0000012B88			2018-12-09 05:32:01	Liquid	
ES0000012B88			2018-12-09 05:32:01	Liquid	
ES0000012B88			2018-12-09 05:32:01	Liquid	
ES0000012B88			2018-12-09 05:32:01	Liquid	
ES0000012B88			2018-12-09 05:32:01	Liquid	
ES0000012B88	2017-01-01	2017-12-31	2018-12-09 05:32:01		
ES0000012B88	2017-01-01	2017-12-31	2018-12-08 15:32:00		
ES0000012B88	2017-01-01	2017-12-31	2018-11-02 18:32:00		
ES0000012B88	2018-07-01	2018-09-30	2018-10-27 05:32:00	Liquid	
ES0000012B88	2018-07-01	2018-09-30	2018-10-27 05:32:00	Liquid	
ES0000012B88	2018-07-01	2018-09-30	2018-10-27 05:32:00	Liquid	
ES0000012B88	2018-07-01	2018-09-30	2018-10-27 05:32:00	Liquid	
ES0000012B88			2018-10-25 12:17:10	Liquid	
ES0000012B88			2018-10-25 12:17:10	Liquid	
ES0000012B88			2018-10-25 12:17:10	Liquid	
ES0000012B88			2018-10-25 12:17:10	Liquid	
ES0000012B88			2018-10-25 12:17:10	Liquid	
ES0000012B88			2018-10-25 12:17:10	Liquid	
ES0000012B88			2018-10-25 12:17:10	Liquid	
ES0000012B88	2017-01-01	2017-12-31	2018-10-25 12:17:10		

FI4000348727

ISIN	Calculation From Date	Calculation To Date	Calculation Time	Liquidity Flag	More Info
FI4000348727	2017-01-01	2017-12-31	2019-01-06 10:55:01		
FI4000348727			2019-01-04 10:35:01	Liquid	
FI4000348727	2017-01-01	2017-12-31	2018-12-30 10:55:01		
FI4000348727			2018-12-30 10:35:01	Liquid	
FI4000348727			2018-12-29 10:35:01	Liquid	
FI4000348727			2018-12-28 10:35:01	Liquid	
FI4000348727	2017-01-01	2017-12-31	2018-12-26 10:55:01		
FI4000348727			2018-12-26 10:35:01	Liquid	
FI4000348727			2018-12-25 10:35:01	Liquid	
FI4000348727			2018-12-23 10:35:01	Liquid	
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ISIN	Calculation From Date	Calculation To Date	Calculation Time	Liquidity Flag	More Info
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